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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,660	01/29/2004	Luis Parellada Armela	05918-256001 / VGCP No. 7	5385
26161	7590	10/17/2007	EXAMINER	
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			WOLLSCHLAGER, JEFFREY MICHAEL	
			ART UNIT	PAPER NUMBER
			1791	
			MAIL DATE	DELIVERY MODE
			10/17/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/767,660

Applicant(s)

ARMELA ET AL.

Examiner

Jeff Wollschlager

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12, 14-28-75, 81 and 82 is/are pending in the application.
- 4a) Of the above claim(s) 29-75 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-28, 81 and 82 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

Applicant's amendment to the claims filed June 22, 2007 has been entered. Claims 1, 6, 14, and 15 are currently amended. Claims 13 and 76-80 have been canceled. Claims 81 and 82 are new. Claims 29-75 have been withdrawn from further consideration. Claims 1-12, 14-28, 81 and 82 are under examination.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-5, 8, 10-12, 14, 15, and 18-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aamodt et al. (US 6,303,062) in view of Parellada et al. (US 6,248,276) and Chesley et al. (US 5,840,089).

Regarding claim 1, Aamodt et al. teach a method for forming a mechanical fastener comprising: providing a projection component comprising discrete projections/stems (20) of

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resin extending from a surface of a base/substrate (12); heating the distal ends of the stems by contacting the ends of the stems with a layer/preformed substrate (24) of extruded material and applying the layer (24) to the distal ends to bond the layer (24) and the projection/stems to form a foreshortened projecting fastener (Figures 1-4; col. 1, lines 48-col. 2, lines 60; col. 5, lines 25-col. 6, lines 65).

Aamodt et al. do not expressly teach heating the distal ends with a non-contact heat source. However, Parellada et al. disclose a method of producing fasteners where the base material and the stems are pre-heated in a "heating area" (108) (Figure 5) to a temperature above room temperature, but much lower than the Vicat temperature, immediately before forming the stems/projections into a desired heat shape (col. 5, lines 38-47).

The examiner notes that the terminology "heating area" and Figure 5 showing the "heating area" in Parellada et al. implies and suggests that the heating area is an oven/furnace type device, thereby implicitly meeting the limitation "non-contact". However and additionally, Chesley et al. disclose that various alternative heating means are employed in the fastening art, such a convective heating by hot air, radiative heating by heat lamps or heated wire and that these heating means are equivalent heating means to conductive heating methods (col. 9, lines 4-15).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have preheated the sheet and stems of Aamodt et al., as suggested by Parellada et al., in a heating area, such as a non-contact heating area, for the purpose, as suggested by Parellada et al., of allowing the subsequent head forming step to be conducted at higher speed (col. 5, lines 38-47)

Finally, the examiner notes that the extruded layer (24) produced by Aamodt et al. is formed prior to its application to the distal ends of the stems. This layer is in the form of a sheet.

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Accordingly, the examiner submits that the extruded layer (24) of Aamodt et al. is reasonably interpreted to be a "preformed substrate". Also, the examiner notes that instant claim 7 suggests the preformed substrate can be at an elevated temperature, even a temperature higher than the distal ends. Accordingly, claim 7 further supports the examiner's interpretation of the claim since claim 7 depends from claim 1 and is necessarily narrower in scope.

As to claim 2, Aamodt melt bond the layer to the stems (col. 3, lines 15-21) without the use of an additional adhesive.

As to claims 3-5, Aamodt et al. press the layer (24) against the distal ends with a pair of pressure rolls (col. 6, lines 55-65; col. 8, lines 14-35). One having ordinary skill would have readily determined the roll pressure to apply to ensure bonding of the extruded layer to the stems while also ensuring the article was not overly compressed/crushed.

As to claim 8 and 10, Aamodt et al. disclose compressing/foreshortening the projections while applying the preformed substrate/layer (Figures 1-4). Further, the projections continue to be compressed after the layer is applied and the composite travels between the nips (56) and (58).

As to claims 11 and 12, Aamodt et al. disclose the stems include heads that extend radially in multiple directions and in more than one discrete direction (Figures 2-5).

As to claim 14, Chesley et al. disclose convective heating by hot air, radiative heating by heat lamps or heated wire (col. 9, lines 4-15).

As to claim 15, Aamodt et al. disclose the layer is selected from a variety of materials such as a thermoplastic sheet (col. 11, lines 57-col. 12, lines 11). The examiner submits that although the extruded layer is at an elevated temperature it is still reasonably understood to be a sheet.

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As to claims 18 and 19, Aamodt et al. teach the layer is made of a different material than the projections/stems (col. 11, line 30-col. 12, line 51) including materials where the layer has a higher softening point than the stems.

As to claims 20 and 21, Aamodt et al. disclose the layer is thin (e.g. 0.254 mm) relative to the substrate and stems/projections (e.g. 1.85 mm) meeting the claimed limitations (col. 12, lines 21-51).

As to claims 22-24 and 27, Aamodt et al. teach applying and bonding the layer to the distal ends of the stems in discrete zones spaced-apart from the base (Figures 1-4; col. 1, lines 48-col. 2, line 60; col. 5, lines 25-col. 6, line 65) and removing the layer from the distal ends (col. 12, lines 49-52) wherein the layer is bonded to the distal ends with molten material carried by the layer (col. 3, lines 15-21).

As to claim 25, the layer comprises pigments, silica and other materials (col. 12, lines 4-11).

As to claim 26, the step of removing the layer leaves an imprint with the resin of the distal ends (Figures 2-5). It is further noted that Aamodt et al. disclose the same claimed process steps through employment of the same claimed materials in the same claimed manner. It follows that the same claimed physical properties and effects are realized.

Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aamodt et al. (US 6,303,062) in view of Parellada et al. (US 6,248,276) and Chesley et al. (US 5,840,089). as applied to claims 1-5, 8, 10-12, 14, 15, and 18-27 above, in view of Provost et al. (U.S. 5,953,797).

As to claims 16 and 17, the combination teaches the method as set forth above to form projections integrally molded with the base, but does not expressly state how the material from

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roll (50) was produced. However, Provost et al. disclose a method of producing a fastener by the claimed process (Figure 6) to produce projections integrally molded with the base.

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to produce the starting material (50) disclosed by Aamodt et al. by the method disclosed by Provost et al. for the purpose of producing the material with conventional equipment in an economically viable manner as is routinely practiced in the art.

Claims 1, 3, 7, 9, 11, 12, 14, 15, 18, 19, 22-27, 81 and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levitt et al. (WO 01/24654) in view of Hatch (US 4,933,224) and/or Eckhardt et al (US 5,691,027).

*Citations to Levitt et al. are provided from U.S. 6,592,800.*

Regarding claims 1, 81 and 82, Levitt et al. teach a method for making a mechanical fastener comprising: providing a projection component comprising discrete projections/stems of resin extending from a surface of a base (Figures 1-4); locally heating the ends of the projections with a heater (50) that causes the projections to soften/foreshorten and compressing/foreshortening the stems with a roller (44), (col. 2, lines 43-col. 3, line 55). Levitt et al. do not teach applying a preformed substrate to the heated distal ends to adhere the substrate to the distal ends of the projection component.

However, Hatch discloses a method of producing a fastener containing article wherein a polymeric protective liner (60) is applied to the surface of the hooks, while they are still at an elevated temperature, to protect the hooks when the article is rolled on a reel (col. 7, lines 35-47; Figure 4). Further, Eckhardt et al. disclose a method wherein a dual purpose cover sheet is applied to the hooks of a fastener. The dual purpose cover sheet may be a woven fabric, nonwoven fabric, or a polymeric material. (col. 5, line 62-col. 7, line 15).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have placed a protective film on the surface/distal end of Levitt's hooks, as suggested by Hatch, for the purpose of protecting Levitt's fastener while it is rolled for storage and shipment (Levitt: col. 9, lines 18-20; Hatch: col. 7, lines 35-47).

As to claim 3, the attachment of the second article to the distal ends is completed by some degree of pressing.

As to claims 7 and 14, Levitt et al. heat the distal ends with a radiant non-contact heater (50) (col. 5, lines 10-67). Hatch's protective sheet is provided from spool (62).

As to claim 9, the foreshortening/deforming/compressing of the projections occurs before the second article is applied (Figures 1-4, (50)).

As to claims 11 and 12, Levitt et al. form projections including heads that extend radially in multiple direction and in more than one discrete location (Figures 3 and 4).

As to claims 15, 18 and 19, Eckhardt et al. and Hatch disclose various materials may be employed (see citations above).

As to claims 22-27, Levitt et al., Hatch and/or Eckhardt et al. disclose that the materials are chosen from a wide variety of materials and articles (col. 9, lines 23 - col. 10, line 7).

Claims 1-3, 6, 7, 9, 11, 12, 14, 15, 18, 19, 22-28, 81 and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levitt et al. (WO 01/24654) in view of Heindel et al. (US 5,961,761)

*Citations to Levitt et al. are provided from U.S. 6,592,800.*

Regarding claims 1, 6, 81 and 82, Levitt et al. teach a method for making a mechanical fastener comprising: providing a projection component comprising discrete projections/stems of resin extending from a surface of a base (Figures 1-4); locally heating the ends of the

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have placed a protective film on the surface/distal end of Levitt's hooks, as suggested by Hatch, for the purpose of protecting Levitt's fastener while it is rolled for storage and shipment (Levitt: col. 9, lines 18-20; Hatch: col. 7, lines 35-47).

As to claim 3, the attachment of the second article to the distal ends is completed by some degree of pressing.

As to claims 7 and 14, Levitt et al. heat the distal ends with a radiant non-contact heater (50) (col. 5, lines 10-67). Hatch's protective sheet is provided from spool (62).

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As to claims 22-27, Levitt et al., Hatch and/or Eckhardt et al. disclose that the materials are chosen from a wide variety of materials and articles (col. 9, lines 23 - col. 10, line 7).

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projections with a heater (50) that causes the projections to soften/foreshorten and compressing/foreshortening the stems with a roller (44), (col. 2, lines 43-col. 3, line 55). Levitt et al. do not teach applying a preformed substrate to the heated distal ends to adhere the substrate to the distal ends of the projection component.

However, Heindel et al. disclose a thermal bonding method for attaching woven and nonwoven substrates to the surface of mechanical fastener to protect the fastener when in use on an article (Abstract; col. 7, lines 6-10; col. 7, line 47-col. 8, line 38).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have placed a protective film on the surface/distal end of Levitt's hooks, as suggested by Heindel et al., for the purpose of protecting the fastener heads and for producing a commercially viable article.

As to claim 2, Heindel et al. disclose thermal bonding (col. 7, line 47-col. 8, line 38).

As to claim 3, the attachment of the second article to the distal ends is completed by some degree of pressing (Heindel: Figure 10).

As to claims 7 and 14, Levitt et al. heat the distal ends with a radiant non-contact heater (50) (col. 5, lines 10-67).

As to claim 9, the foreshortening/deforming/compressing of the projections occurs before the second article is applied (Figures 1-4, (50)).

As to claims 11 and 12, Levitt et al. form projections including heads that extend radially in multiple direction and in more than one discrete location (Figures 3 and 4).

As to claims 15, 18 and 19, Heindel employ woven and nonwoven materials.

As to claims 22-27, Levitt et al. and Heindel disclose the materials are chosen from a wide variety of materials and articles (col. 9, lines 23 - col. 10, line 7).

As to claim 28, Heindel et al. disclose contacting the base with the preformed substrate (Figure 10; Figure 10B, Figure 11)

### ***Response to Arguments***

Applicant's arguments filed June 22, 2007 have been considered, but are moot in view of the new grounds of rejection necessitated by the amendment. However as set forth above, the examiner does not agree with the characterization that the extruded layer/sheet of Aamodt et al. is not a "preformed substrate" as recited in claim 1.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

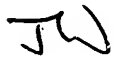
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Wollschlager whose telephone number is 571-272-8937. The examiner can normally be reached on Monday - Thursday 7:00 - 4:45, alternating Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jeff Wollschlager  
Examiner  
Art Unit 1791

October 15, 2007



CHRISTINA JOHNSON  
SUPERVISORY PATENT EXAMINER